



# INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume 3, Issue 6)

Available online at [www.ijariit.com](http://www.ijariit.com)

## Ethnobotanical Studies of Sacred *Aegle marmelos* Plant

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**Abstract:** Ethnobotany is a multidisciplinary science defined as the interaction between plants and people. The relationship between plants and human culture is not limited to the use of plants or food, clothing, and shelter but also includes their use of religious ceremonies, ornamentation and health care.

In the past, Ethnobotanical research was predominantly a survey of the plant used by villagers. A trained botanist identified the plants and recorded their uses. Sometimes an anthropologist was present to translate the disease descriptions, but rarely was a physician available to identify the disease. In this paper, we discussed 8 plants that selected from the total work associated with the topic.

**Keywords:** Ethnobotany, Spiritual Importance Epic, Forest Area.

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### MATERIAL AND METHOD

Bihar is located in the (indo- Gangetic plane plain, North India) of India between latitude 24°-20'-10"N~27°-31'-15"N and longitude 82°-19'-50"E~88°-17'-40"E. It is entirely land-locked state, in a Sub Tropical region of the Temperate zone. The total area of The Bihar is 94,163.00sq.kms. The rural area of Bihar is 92,257.51sq.kms whereas Urban area is 1,095.49 sq.kms.

The present work is based on the outcome of Ethnobotanical exploration conducted in several villages. Regular visits to different tribal were made for a period spread over more than a year to collect a firsthand account on Ethnobotanical interesting species either at flowering or fruiting stage. In each village, family heads, elderly villagers, the village head, experienced informants, village herbalist and traditional healers were interviewed for getting a better understanding of local customs, beliefs, and habits. Answer to scientific questions based upon the Performa designed by Jain and Goel; 1995 were sought and the information supplied by the informants as also the name of the locality, altitude and local name was recorded in the field notebook for future reference and use. There is a traditional notion among the tribes that if any secret about the therapeutic value is revealed to anyone outside their own heirs, the efficiency of the plant will vanish.

### *Aegle marmelos*

#### Classification

Plantae

Angiosperms

Dicots

Order: Sapindales

Family: Rutaceae

Genus: Aegle

Species: marmelos

**Reproductive cycle:** April to July.

**Parts Used:** Fruit, Leaves and Bark.

**Common Names:**

**English:** Wood apple, Stone apple, Indian Quince, Bengal Quince, Bael fruit tree, Holy fruit.

**Sanskrit:** Atimangaliya, Mahakapithakya, Satyadharmā, Tripatra.

**Assam:** Bel

**Bengali:** Bela, Vilva

**Gujrat:** Bil, Billy

**Hindi:** Bel, Sripthal

**Kannada:** Bilvapatra

**Malyalam:** Kuvulam, Mavilamu

**Marathi:** Bel

**Oriya:** Bilwa, Sriptholo.

**Tamil:** Aluvigam, Iyalbudi

**Telgu:** Bilvamu, Sailushamu.

**Description**

The Bilva tree is found all over India, from sub Himalayan forests, Bengal, Central and in Burma. This is a tree occurs in the sub mountainous regions and plains Almost throughout India. It is also cultivated commonly throughout the country.

**Leaves:** The deciduous, alternate leaves, borne singly or in 2's or 3's, Are composed of 3 to 5 oval, pointed, Shallowly toothed Leaflets 4 to 10 cm long, 2 to 5 cm wide, The Terminal one with a long petiole. New foliage is glossy and pinkish- maroon. Mature leaves emit an odour when burnished.

**Fruits and seeds:** Fruits are a yellowish green, With her small dots on the surface, oblong to globos, 5.3 cm to 7.2 cm in diameter, pulp yellow and mucilaginous, the pulp of dried fruits remains its yellow, and also remains intact; rind woody, 4 to 5 mm thick. The seeds are numerous, embedded in the pulp, oblong, compressed with white cotton like structures on the outer surface. Seeds non endospermic and surrounded by a mucilaginous mass. Embryo with thick fleshy cotyledons.

**Ethnobotanical Uses**

- All parts of this tree, viz., root leaf, trunk, fruit, and seed are used for curing the human ailment.
- Bilva leaves are useful in jaundice and in the treatment of wounds. The extract of leaves is beneficial in the treatment of leucorrhoea, conjunctivitis, and deafness.
- Fruits give a feeling of freshness and energy. It is used as carminative and astringent. It finds good utility in thyroid related disorder.
- It is also used in cardiac stimulant, swollen joints, pregnancy trouble, typhoid, and coma.
- The dried powder leaf is used in the treatment of irritable bowel syndrome.
- The various part of Aegle marmelos has shown antimicrobial, antioxidant and anti-diabetic activities.
- The wood is yellowish or greenish white, Hard lustrous, aromatic when freshly cut. It takes a fine polish and is suitable for house building, cart construction, agricultural implements, Carving, pestles, Tool handles, comb etc.
- Leaf juice is applied to the body before taking a bath to remove bad smell.
- A yellow dye is obtained from the unripe rind.
- The sweet aromatic fruit pulp is very nutritious which is used for making sharbat.
- The pulp is often used as a substitute for soap for washing clothes as it has detergent properties.
- Gum from the stem is non edible but acts as a good adhesive and used open for bookbinding.
- Beating the seeded pulp together with milk and sugar makes a popular drink called sharbat in India.
- Mature but unripe fruits are made into a jam with the addition of citric acid.
- The pulp is also converted into syrup, which is used as food material as well as a therapeutic agent in relieving diarrhea and dysentery.
- A firm Jelly is made from the pulp.
- The pulp is also pickled.
- The young leaves and shoots are eaten as a vegetable in Thailand and used as seasonal food in Indonesia. These are said to reduce the appetite.
- The unripe or half ripe fruit is a most effective remedy for chronic diarrhea and dysentery without fever. Best results are obtained by the use of dried fruits or its powder.
- The fruits when it is still green, is sliced and dried in the sun. The dried fruit slices are reduced into powder and preserve in airtight bottles. This powdered drug is recommended for chronic dysentery.
- The bark of the old tree is used to prepare and antidote for the poison of all kinds of a snake bite, Chronic stomachache, and to treat watery diarrhea.
- The decoction of root bark is useful for intermittent fevers.
- The raw fruit is recommended for a person suffering from getting or Arthritis since it generates heat in the body.
- The fruit is high in tannin, an astringent which is commonly added to the water to wash burns and abrasions.
- The ripe fruit helps to eliminate the ailment Caused by excessive bile, but drinking water immediately after eating the fruit aggravates the bile disorder.
- The pulp from the unripe fruits is soaked in gingelly oil for a week and this oil is smeared over the body before bathing. This oil is said to be useful in removing the peculiar burning sensation in the soles.

- The fruit and leaves are used to destroy phlegm and it's a good remedy for fever associated with catarrhal symptoms, also good for dropsy.
- The leaf has anti-inflammatory properties and also a good cardio tonic.
- Leaves are an effective remedy for spastic colon and chronic constipation. The juice of leaves, when taken with black pepper, relieves constipation.
- In homeopathic treatment, leaves are largely used for conjunctivitis.
- The ripe fruit is a good and simple cure for indigestion.
- Leaf poultice with black pepper applied to treat edema.
- Leaves juice along with water or honey is good for fever common cold and jaundice.
- Twigs are used to treat Gingivitis. Brushing the teeth with a young branch of this plant is beneficial to strengthen the gums.
- The fruit is useful for inflammation in the tongue.
- The Pulp of the fruit is employed in the treatment of leucoderma.
- Regular drinking of fruit juice in Shilong a span of life and golden colour of the skin.
- The roots and the bark decoction of the tree are used in the treatment of fever especially against malarial fever.
- The fruit and leaves are useful to treat poor absorption bleeding vomiting and nausea with blood.
- The leaves are made into a poultice and used in the treatment of ophthalmia.
- Diluted Pulp with turmeric, Sandalwood powder, and mustard powder mixed into a paste acts as a cleanser and skin toner.
- The leaves are also effective in Ulcer.
- The Glue of this plant is commonly used as household glue and is employed as an adhesive by Jewelers.
- Sometimes the glue is resorted to as a soap substitute.
- The Glue is mixed with lime plaster for waterproofing well and is added to cement when building walls.
- Artists add it to their watercolors, and it may be applied as a protective coating on paintings.
- Bilva is one of the members of the Dasmularist in which its root is used.
- Bilva was also used as a stick by the Babylonian 7000 years ago.

### **Spiritual Importance**

Bilva tree is Associated with Lord Shiva. Its trifoliate leaf is believed to symbolise the three function of the Lord-- Creation, preservation, and destruction as well as his three Eyes. The offering of the leaves is compulsory ritual while worshipping Lord Shiva all over India. It is commonly called Bilva tree. According to the Agni Puran on any auspicious day in Bhadra, Shiva should be worshipped with a daylong fast and the eating of bilva leaves at night. The Padam Puran and the Brahmapuram Say that Shiva once hid in the Bilva to escape conquering demons. The skanda Purana holds that the Bilva grew From Parvati's perspiration, which fell to the ground while she performed penance. It is also said that the various incarnations of Parvati reside in each part of the tree. The Brihddharma Puran relate how Laxmi prayed to Shiva Everyday and offered him 10000 Lotus buds. One day she fell short by two buds. Remembering that Vishnu had compared her breasts to Lotus buds, she decided to offer them instead. She cut one off and offered at humbly. Before she could cut the other, Shiva pleased with her devotion, I stopped her. Her cut breast became the fruit of the Bilva. The Bhavishya Purana says that after the Samudra Manthan, Lakshmi, who had just immersed from the ocean, fested in the Bilva. It was the 9th bright day of Bhadra. Therefore, the Bilva is worshipped every year on that day.

In Hinduism, the Lord Shiva is said to live under the bilva tree. Lord Shiva is very much pleased by offering the leaves from the bilva tree. Thus the Brahmins Worship to Lord Shiva by offering Bilva leaves, Horror period of one fortnight and satisfied Lord Shiva greatly.

Its fruit, flowers, and leaves are all sacred to Shiva. Planting Bilva trees around home or temple is sanctifying, as it is worshipping A Linga with Bilva leaves and water. It is considered to be very auspicious and sacred to Hindu as its leaves and wood are used as essential items of Pooja samagri for the worship of Lord Shiva. For this reason, it is also called Shivadrume. It is considered as an emblem of fertility. Because of this a spiritual use, it is often found in the garden of temples.

Lakshmi, the Goddess of fortune, is said to reside in the Bilva. Ancient Sanskrit texts refer to it as Bilva and the fruit of prosperity. Its leaves are an important offering to Shiva, for their trifoliate Shape Signifies Shiva's three Eyes. Since they have a cooling effect, they are offered to the Shivalingam to soothe his hot tempered deity. Even a fallen Bilva is never used as firewood, for fear of arousing Shiva's warth. Its wood is used only in sacrificial fires. The tree is also sacred to the Jains. The 23rd Trithankara, Bhagwan Parasnathji attained enlightenment under a Bilva tree.

**The Plant is described in the Epic**

Epic	Kand	Sarga	Shloka	Location
Ramayana	Balkand Kiskindhakand Aranyakand	24 1 11	1.24.15 4.1.78 3.11.74	Malda and Karusha Pumpa Lake Agastya's Hermitage
Mahabharat	Vanparva Shalya Parva	III IX	174.23 3.59	Dvaita Forest, Kurukshetra, Sarswati River Sarswati River

**CONCLUSION**

Aegle marmelos is one of the marvelous plants among the angiosperms. Its uses and benefits not only related to medicinal value but it has also a great importance of spiritualism. The description of this plant has been occurring in our many ancient holy books. In the present study notify the plants in our two great religious epics The Ramayana and the Mahabharata. Stories about this plant show its importance and a message to people why they keep and save this plant for the next generation.

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